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(74) Agents: INSOGNA, Anthony, M. et al.; Pennie & Edmonds LLP, 1155 Avenue of the Americas, New York, NY 10036 (US).

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(71) Applicant (*for all designated States except US*): **CEL-GENE CORPORATION** [US/US]; 7 Powder Horn Drive, Warren, NJ 07059 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **HARIRI, Robert, J.** [US/US]; 5 Heritage Road, Florham Park, NJ 07932 (US). **PAYVANDI, Faribourz** [US/US]; 30 Labow Way, Belle Mead, NJ 08502 (US). **WU, Lei** [CN/US]; 55 Huntley Way, Bridgewater, NJ 08807 (US). **STIRLING, David, I.** [GB/US]; 3281 Round Hill Road, Branchburg, NJ 08876 (US). **YE, Qian** [US/US]; 10 Mount Haven Drive, Livingston, NJ 07039 (US).

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(54) Title: METHODS FOR IDENTIFICATION OF MODULATORS OF ANGIOGENESIS, COMPOUNDS DISCOVERED THEREBY, AND METHODS OF TREATMENT USING THE COMPOUNDS

(57) Abstract: The present invention relates to methods of identifying modulators of angiogenesis utilizing human cells. The methods of the invention can be employed to assay compounds and small molecules for their ability to modulate human angiogenesis utilizing human pluripotent stem cells in an *in vitro* assay system. The present invention further relates to methods of identifying modulators of human angiogenesis by determining the ability of a test compound to modulate spontaneous vasogenesis in an *in vitro* assay system utilizing nonembryonic pluripotent stem cells. The present invention relates to *in vitro* assay systems utilizing nonembryonic pluripotent stem cells for the identification of compounds that modulate human angiogenesis or human vasogenesis. The present invention also relates to methods of treatment which require modulation of human angiogenesis or vasogenesis comprising administering to patients in need of such treatment compounds or small molecules which have been identified to be inhibitors of human angiogenesis or vasogenesis.

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